

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A method of controlling the driving of a function liquid droplet ejection head having ~~disposed therein~~ a plurality of nozzle arrays disposed therein with a different function liquid droplet ejection amount per unit nozzle,

wherein, in one print cycle, driving of the plurality of nozzle arrays is controlled by using a single driving signal inclusive of:

a single micro oscillation pulse which causes a function liquid forming a meniscus at each nozzle of the plurality of nozzle arrays to oscillate without causing ejection of the function liquid; and

a first ejection pulse which has a first waveform corresponding to specifications of ~~respective~~ a first nozzle array of the plurality of nozzle arrays to eject function liquid droplets from the first nozzle array;

a second ejection pulse which has a second waveform corresponding to specifications of a second nozzle array of the plurality of nozzle arrays to eject function liquid droplets from the second nozzle array, the second waveform being different than the first waveform; and

a single damping pulse for damping residual oscillation of a pressure generating element which generates pressure fluctuations in a cavity communicating with each nozzle of the plurality of nozzle arrays.

wherein the micro oscillation pulse is inputted before the first and second ejection pulses are inputted in said one print cycle, and the damping pulse is inputted after the first and second ejection pulses are inputted in said one print cycle, and
~~drive signal having a plurality of ejection pulses corresponding to the plurality of nozzle arrays;~~

~~wherein the plurality of nozzle arrays include a first nozzle array which ejects a first function liquid droplet ejection amount and [[a]] the second nozzle array which ejects a second function liquid droplet ejection amount which is smaller than the first function liquid droplet ejection amount, and wherein a number of nozzles in the second nozzle array is two times the number of nozzles in the first nozzle array.~~

2. (Cancelled).

3. (Currently Amended) The method according to claim 1, wherein the first ejection pulse is driving of the plurality of nozzle arrays is controlled by using an identical to the second ejection pulse in case of performing flushing which is function recovery processing by waste discharging of liquid droplets from all nozzles.

4-5. (Cancelled).

6. (Currently Amended) The method according to claim 1, wherein ~~the drive signal has a damping pulse for damping residual oscillation of a pressure generating element which generates pressure fluctuations in a cavity communicated with each~~

~~nozzle, and wherein, in said one print cycle, the damping pulse is inputted after input of the plurality of ejection pulses and has a waveform corresponding to a~~the ~~waveform of the last inputted~~an immediately preceding one of the first and second ejection pulses~~pulse.~~

7-26. (Cancelled)

27. (new) The method according to claim 1, wherein a number of nozzles in the second nozzle array is two times a number of nozzles in the first nozzle array.